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10/823,431	04/13/2004	Leo M. Pedlow JR.	SNY-T5775.02	4023

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MILLER PATENT SERVICES
2500 DOCKERY LANE
RALEIGH, NC 27606

EXAMINER

HOMAYOUNMEHR, FARID

ART UNIT	PAPER NUMBER
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2132

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/823,431	Applicant(s) PEDLOW, LEO M.	
	Examiner Farid Homayounmehr	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-33 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-6 and 8-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>multiple</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Amended claims 1-6, 8-33 has been considered. Claim 7 was cancelled by the applicant.

Information Disclosure Statement PTO-1449

2. Information Disclosure Statements submitted by the applicant on 4/25/2006, and 10/27/2006 have been considered. See attached 1449 forms.

Response to Arguments

3. Applicant's arguments relative to the new amendments have been fully considered. The new amendments overcome the rejections presented in the previous office actions. Accordingly, new grounds of rejection are presented as follows.

The rejection is based on a combination of So and Colligan. So teaches systems that "encrypt in real-time in response to every request" as prior art in paragraphs 14 and 15. So teaches that it is inefficient to encrypt the entire content for every request from the client. Accordingly, So teaches selective encryption to improve over having to encrypt the entire content. It also teaches the use of pre-encryption to improve efficiency over

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having to encrypt in response to every request. Therefore, So does not specifically teach encrypting in response to every request in the description of his invention, although it acknowledges and confirms that existing methods in prior art included encryption in response to every request.

Colligan teaches a VOD system which performs selective encryption in response to every request (see Fig. 5A and associated text). As described in the following section, it would have been obvious to a person skilled in art to combine the teachings of So and Colligan to selectively encrypt a content in response to every request from a user terminal.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim1-6, 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: The claim includes a conditional statement of "if the request is from a subscriber terminal having decryption capabilities associated with the first decryption method". The claim does not specify any action if the above condition is not met.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over So (US Patent Application Publication No. 2002/0083438, dated 6/27/2002), and further in view of Colligan (US Patent No. 6,415,031, filed March 20, 2000).

7.1. As per claim 1, 10 and 17, So is directed to a VOD method that provides session based encryption (paragraphs 45 and 106), comprising: processing content by selecting first portions of the content for encryption under a selective encryption system and selecting second portions of the content to remain unencrypted (paragraph 106 discloses use of selective encryption); storing the first portions; storing second portions; receiving a request for delivery of the content (paragraph 58); determining if the subscriber terminal has decryption capabilities associated with a first decryption method or a second decryption method (paragraph 63, where the CAS system determines cryptographic parameters. Note that EMM signals match the capabilities of terminals with the encryption protocol, and therefore the capabilities of subscriber terminals are determined and considered); if the

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request is from a subscriber terminal having decryption capabilities associated with the first decryption method, then for each request from the subscriber terminal having decryption capabilities associated with the first decryption method to initiate VOD session (encryption for each request was obvious to the one skilled in art and as taught by Colligan. See the explanation at the end of rejection of claim 1): routing the first portions to a first encryption device that encrypts content for decryption under the first encryption method for VOD session (paragraph 51); routing the second portions around the first encryption device; encrypting neither the first nor the second portions using a second encryption device that encrypts content for decryption under the second decryption method for VOD session (So encrypts the content according to capabilities of the requesting terminal, and won't perform any encryption that cannot be decrypted by the receiving terminal); encrypting the first portions using a first encryption process at the first encryption device to produce encrypted first portions (paragraph 51, where the CPS encrypts the content according to CAS specifications); and assembling a stream of selectively encrypted content from the encrypted first portions and the second portions to produce a selectively encrypted stream of content that is individually encrypted for delivery during the VOD session (paragraph 106, disclosing the selective encryption).

So's invention does not encrypt the content after each request, but it recognizes that prior art for VOD distribution does teach encryption after each request (see paragraphs 14 and 15). Colligan teaches encryption after each request (Fig. 5A and associated text)

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and use of selective encryption to reduce the amount of encryption/decryption (examples shown in Figs. 12-14 and associated text).

So and Colligan are analogous art because they are both directed to VOD systems and efficient encryption of content for delivery to the subscribers.

At the time of invention, it would have been obvious to a person skilled in art to combine teachings of Colligan in encrypting after each request with teachings of So.

The motivation to combine lies in the fact that VOD subscribers have variety of set top systems and it is desirable to be able to service all of them to expand client base. In fact So teaches that legacy systems use encryption in real time for each request. A person skilled in art would be motivated combine so that they could service both the legacy systems using real time encryption and systems that use pre-encryption.

7.2. As per claim 2, So is directed to the VOD method according to claim 1, wherein the first portions are stored in a first file and the second portions are stored in a second file (paragraph 55 discloses storing the content in files of OLES).

7.3. As per claims 3, 12, So is directed to the VOD method according to claim 2, wherein the first and second files are stored in a VOD server (OLES is part of VOD server).

7.4. As per claims 4, 13, So is directed to the VOD method according to claim 1, further comprising streaming the selectively encrypted content to the terminal (paragraph 59).

7.5. As per claims 5, 14, So is directed to the VOD method according to claim 1, wherein the first decryption method comprises a legacy encryption method (per definition of "legacy" in paragraph 39 of applicant's disclosure, a legacy encryption method is an encryption method based on existing technology. So's encryption method's are based on existing technology).

7.6. As per claims 6 So is directed to the VOD method according to claim 1, wherein the assembled stream is passed through a second encryption device that is not provisioned to carry out encryption processing on the stream (according to paragraph 75, multiple encryption keys may be used to encrypt the content depending on configuration. Therefore, multiple encryption devices are present that may not carry out encryption if not configured to do so).

7.7. As per claim 11, So is directed to the VOD method according to claim 1, further comprising: if the request is from a terminal having decryption capabilities associated with the second decryption method, then: assembling a stream of content from the first portion and the second portion; routing the stream to a second encryption device; and

encrypting the first portions using a second encryption process at the second encryption device to produce a selectively encrypted stream (according to paragraph 51, CPS encrypts content based on CAS specifications. Therefore, if the client is capable of performing second decryption method, the data will be encrypted accordingly).

7.8. As per claims 8, 15, So is directed to the VOD method according to claim 7, wherein the second decryption method comprises a non-legacy encryption method (paragraph 55 discloses use of the encryption record, which allows So's system to flexibly work with any encryption method, by negotiating encryption parameters with the client before encryption).

7.9. As per claims 9, 16, So is directed to the VOD method according to claim 1, carried out under control of a programmed processor (paragraph 59).

7.10. Claims 18 to 33 are disclosed by So as described by responses to claims 1 to 17.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farid Homayounmehr whose telephone number is 571 272 3739. The examiner can normally be reached on 9 hrs Mon-Fri, off Monday biweekly.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Farid Homayounmehr

Examiner

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GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
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